

REMARKS/ARGUMENTS

Applicant respectfully requests reconsideration of the above-identified patent application in view of the foregoing amendments and following remarks. Claim 1 was amended to provide that the coating adheres to the upper surface, as described on page 3, lines 25 - 28, of the specification to provide for adhesion. Similarly, claims 9 – 15 were amended to emphasize that the semiconductor device is not only coated with the formulation of claims 9 – 15, but that this coating adheres to the semiconductor device. No new matter has been added. Entry of the forgoing amendment is respectfully requested. Claims 1 – 15 are pending.

Claims Rejection Under 35 U.S.C. §103

Claims 1 – 15 were rejected under 35 U.S.C. § 103 as unpatentable over Ree et al. (U.S. Patent 4,153,661) in view of Wessling et al. (U.S. Patent 5,498,761). The Examiner contends that the primary reference, Ree et al. “disclose how to prepare a composite sheet by mixing in an aqueous media particulate material and polytetrafluoroethylene (hereinafter referred to as PTFE) particles, which are subsequently fibrillated therein to form a unitary matrix of entangled PTFE fibrils containing the particulate material.” The Examiner further contends that Ree et al. is missing only the disclosure of coating a semiconductor device, but that the secondary reference, Wessling et al., discloses coating a transistor. Applicant respectfully traverses this rejection because the two references, even if they could properly be combined, do not together disclose or suggest the claimed invention and because there is no disclosure or suggestion contained in either cited reference to suggest combining a reference forming a sheet matrix that is self-supporting with a coating of a transistor that does not form a sheet or self-supporting matrix.

With regard to the issue of whether a *prima facie* case of obviousness has been established by the Examiner, the combination of Ree et al. and Wessling et al. does not disclose or suggest the claimed invention. Specifically, claim 1 describes the “particulate” element as controlled porosity glass (CPG). CPG is not any old particulate material or even any odd glass particulate material, it is a highly porous material known to have functional hydroxyl groups available for organic synthesis and particularly synthesis of nucleic acids (*e.g.*, DNA)¹. CPG is described in, for example, U.S. Patents 3,549,524 and 3,758,284. However, disclosure of a sheet or membrane that could “wrap” a semiconductor device does not disclose or suggest a “coated” semiconductor device according to claims 1 – 15 because a coating adheres to the upper surface of the semiconductor device whereas a wrapped sheet does not adhere to the surface of the

¹ It should be noted that the specification page 1, lines 28 – 31 provides that “for oligonucleotide synthesis, it is important to provide a substrate solid phase material that contains terminal OH groups available to start a coupling reaction and that each synthesis step for the coupling reaction to create an oligomer (*i.e.*, deprotection and capping) goes to completion.”

semiconductor device. Moreover, forming a sheet or membrane and then “wrapping” the semiconductor device with the sheet or membrane does not form the claimed coated semiconductor device because there is no adherence as between the semiconductor device and the material of the sheet or membrane. Therefore, the combination of Ree et al. and Wessling et al. does not disclose or suggest the claimed invention.

In order for references to be combined there must be some disclosure found in the references (not in the claimed invention) to suggest their combination. Here, the two references are completely unrelated to each other. Ree et al., for example, relates to a composite sheet material that is self-supporting and has high tensile strength (see column 3 line 13). The uses of the high tensile strength sheets in Ree et al. are provided in column 6 line 59 through column 7 line 6. Apparently, one use is as a substitute for leather (“doe skin”) and “some are drapable as jersey cloth, as wettable as chamois skin, and as pleasant to the touch as kid leather.” There is no suggestion that the self-supporting, high tensile strength sheets of Ree et al. are useful for synthesizing oligonucleotides in a porous matrix when adhering to a semiconductor device. Accordingly, there is no suggestion in Ree et al. to support its combination with Wessling et al. or other conductive polymers for adhering to and forming an electrochemical matrix for synthesizing organic molecules such as DNA and other nucleic acids.

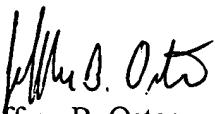
Wessling et al. provides an electrically conductive polymer. It should be noted that the formulation of claims 9 – 15 is not electrically conductive. There is no suggestion in Wessling that electrically conductive polymers should be leather-like, used like doe skin, drapable as jersey cloth, or wettable as chamois skin. Instead the field in Wessling et al. is electrically conductive polymers and there is no suggestion of a combination with organic synthetic porous matrices of the present invention or the high tensile strength leather-like sheet or “skin” of Ree et al. Accordingly, there is no suggestion found in either Ree et al. or Wessling et al. to suggest their combination. Withdrawal of the foregoing rejection is respectfully requested.

Information Disclosure Statement

Applicant respectfully submits the attached Information Disclosure Statement (IDS) and the required fee under 37 C.F.R. §1.17(p) for consideration by the Examiner. The references are each cited on page 1 (Background section) of the specification (with the exception of the reference already of record) or relate to controlled pore glass (CPG). Applicant states that no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in §1.56(c) more than three months prior to the filing of the information disclosure statement. Applicant respectfully requests consideration of the references submitted with the IDS.

In view of the foregoing amendment and response, applicant respectfully requests reconsideration of the rejections and allowance of pending claims 1 - 15.

Respectfully submitted,



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